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ABSTRACT

The high school/student qualities that lead to a more successful school-to-work transition were investigated. The project identified features of the high school experience correlated with initial labor market success/failure of young workers and determined if the conditions of a successful transition have changed in the last decade. Data for the high school senior class of 1980 from the High School and Beyond Survey were compared to a sample from the National Longitudinal Survey of the High School Class of 1972. No clear evidence was found that the high school academic experience has led to the decline in labor market experience. For males, high school vocational programs improved dramatically between 1972 and 1980. Conversely, the cooperative vocational programs successful for the class of 1972 no longer functioned well by 1980. Only weak evidence supported the notion that better disciplined study habits improved labor market outcomes. Hours spent on a job during the senior year were very important for early work experiences of youth. However, a better academic record was generally rewarded in the labor market. A greater emphasis on academic credit hours consistently was related negatively to wage rates, employment, and earnings. Vocational courses had a positive payoff. (Eleven tables are appended.) (YLB)

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HIGH SCHOOL GRADUATES IN THE LABOR MARKET: A COMPARISON OF THE CLASS OF 1972 AND 1980

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FOREWORD

This paper is a product of the nonresident scholar program conducted by the Research Division of the National Center for Research in Vocational Education. This program is designed to draw on scholars from outside the National Center in order to assure a broad coverage of research topics and spark a lively exchange of ideas among top scholars in the country.

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I. INTRODUCTION

The transition from school to work has always been difficult by any measure of labor market success. The young inexperienced job seeker has more difficulty finding employment, and when secured, receives lower wages for the work. Unemployment rates of young workers are always considerably higher than older workers, while the average wage rates are lower for the young. The employment experience, particularly, seems to have worsened in the last fifteen years. In 1984 the unemployment rate of 18 and 19 year olds averaged 15.9 percent. It was 14.7 percent in 1979, the last year of reasonably low national unemployment (so called full employment). This compares to a 12.4 percent unemployment rate for the age cohort in 1973 and 11.3 percent in 1966, comparable years in terms of labor market conditions.

There has been a great deal of conjecture in recent years that the nation's education system is a large part of the problem. It is variously contended that today's students do not receive a sufficient basic educational foundation. Furthermore, many observers of the educational system feel that the school system is too unstructured--not enough discipline, too much absenteeism and too many distractions confront the students. It follows that, if the nation's education system poorly prepares students for the school-to-work transition, it also holds a great deal of potential to ease the transitional problems. The National Commission on Excellence in Education (1983) has led the call:

> Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we must dedicate ourselves to the reform of our educational system for the benefit of all—old and young alike, affluent and poor, majority and minority. Learning is the indispensable investment required for success in the "information age" we are entering. (p. 7)

Reform of secondary education is a top priority for all of the groups which find fault with the trend in education. The National Commission states that

> ". . . the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people." (p. 5)

The proposed reforms include stricter graduation requirements, more homework, and greater emphasis on the basic educational needs of students--more literacy skills, more courses in math, science, social sciences and languages. In contrast, critics of the reform movement fear that a new emphasis on core academic courses, and a coincident deemphasis of vocationally oriented courses, will alienate students with little interest in pursuing higher education. This could lead to higher dropout rates, more discipline problems, and a less-prepared student for the vocational requirements of employers.

The purpose of this study is to investigate the high school/student qualities that lead to a more successful school-to-work transition. It is the early work experiences of youth that may form the foundation for employment security and earnings growth over the life cycle. The project has two aspects: to identify features of the high school experience that are correlated with the initial labor market success/failure of young workers; and to see if the conditions of a successful transition have changed in the last decade.

There is a wide array of conditions that define successful work experiences. Unfortunately, many of the conditions are unobservable or only partially observable--job satisfaction, training and potential for job promotions, desirable working conditions, and so forth. Instead of relying on features of a job that are difficult to measure, three easily observed features representative of work success have been selected for this study. The wages paid to youth at two time periods during the first year and a half of work following high school completion are analyzed. Also analyzed is the proportion

of months of employment during the time period and the total earnings (a combination of wage success and employment security). Quite obviously, these three measures of the youth's labor market experience do not exhaust the possibilities for defining success in the workplace. Instead, they are used as approximations for the degree to which the educational system has prepared students for work.

It is also noteworthy that only the earliest of work experiences are examined in this study. This is done because the focus of the project is the transition period, and because there is reason to believe that the initial labor market experiences, if favorable, breed later work success. But clearly, future testing is needed to see if an individual's educational background has a differential impact on the labor market success of more mature workers. Two possibilities exist. One is that the important educational qualities of an individual are very costly to detect for an employer, but nevertheless important to labor market success. In this event, educational attributes will become known to employers only after many years of observing the worker on the job. Thus, educational background will not have much importance to early work success but will be a good predictor of later success. Conversely, it is possible that employers use certain easily detected education events (e.g., diploma, grade point average) as an initial "screening device" to hire workers. If these are inadequate predictors of ultimate worker qualities, the early advantages given to individuals who possess a diploma or who have achieved higher grade point averages will decay over time. Further work is necessary in this area, but is complicated by intermediate events such as post-high school training. These intermediate events, themselves, may be related to education quality. The experiments, when conducted, will have to be very carefully constructed, and are beyond the scope of this study.

Because another focus of this project is the trend over the last decade, two comparable samples are used which were constructed eight years apart. Both samples have almost identical data for work conditions, educational experience and individuals' attributes. Thus, the samples provide an easy comparison of the school-to-work transitional trends during the eight-year period. The samples come from the National Longitudinal Survey of the High School Class of 1972 (NLSHS), and the High School and Beyond Survey involving the high school class of 1980 (HSB). Nearly identical experiments are run with the two cohorts to test whether the educational system has been a contributor to the worsening trend in the school-to-work transition.

In the next section of this report, the issues are carefully defined. In the third section the data and samples are described, and the empirical analysis is presented. A conclusion and summary is provided at the end.

II. ISSUES ON THE EDUCATIONAL EXPERIENCE AND THE SCHOOL-TO-WORK TRANSITION

1. The Educational Experience

The notion that labor market success will be favorably impacted by upgrading basic academic skills of high school students and greater devotion to study habits by students has gained widespread acceptance remarkably quickly. Indeed, a "back to basics" approach seems to be sweeping the nation. While it is obvious how better academic skills could lead to subsequent success in many jobs, it is equally obvious that a great many academic skills have no practical application in the workplace. Similarly, if students must devote more time to academic curricula, then vocationally-oriented courses must be deemphasized. Does the restructuring of educational requirements make the student better prepared or less prepared for most jobs?

At the outset, it must be emphasized that only jobs which do not require higher education are being analyzed. If job skills are becoming increasingly dependent on college background, then by definition better academic development in secondary schools is essential to satisfy the prerequisites for the growth sector in the economy. No one can predict the future, but to date, there is a good deal of evidence that is contrary to the notion. BLS projections predict that many occupations which do not require advanced academic abilities will be growing rapidly in the next decades.

In this part of the report, educational issues concerning the school-to-work transition are raised. A large number of potential influences are examined, including the major academic factors. But the educational experience is defined much more broadly for this study. Also included are the number of hours devoted to studying, working and extracurricular activity. A variety of attitudes that are partially formed in the school environment are analyzed also in this context.

2. Hiring Inexperienced Workers

To develop a framework for analyzing the transition from school to work, one basic question must be asked. How do employers select the new hires from its pool of applicants? The employer wants to know personal characteristics of the applicant such as ability and willingness to learn specific skills, reliability, absenteeism, the desire to work, willingness to remain with the firm without frivolous job turnover, ability to be supervised, and ability to get along with co-workers. When recruiting individuals who have just completed high school, none of the characteristics can be detected with much certainty. Instead, employers must infer these characteristics from interviews, references from previous part-time jobs during school, reported extracurricular high school experience, and academic records.

Work during high school. Probably the most direct information can be ascertained if the individual worked during high school. This provides considerable inferences about the individual's ambition to work. It also may lead to direct job placement with the same employer after completing high school if the overall work relationship has been positive. If the individual does not continue the employment relationship, recommendations are available to the new employer about some of the key attitude characteristics. Generally, work experience during high school should lead to greater initial labor market success after completing high school, all else constant. This is supported in studies by Hollenbeck (1984), Miguel et al. (1982) and Stephenson (1979, 1980). Evidence is presented that employers use the nature of previous work experience and reasons for leaving the previous job as important screening devices. A measure of hours of work during the senior year in high school is used in the present analyses to test this effect.

Interview process. The job selection interview is the most widely used screening device of employers, and possibly the most important factor in the

hiring decision (Bishop 1985). It also may be the most subjective of the selection criteria. During the interview, employers try to ascertain certain attitude traits important to their firm. This certainly includes work attitudes, but also may include personal appearance and personality traits—the individual's self-concept, self-confidence and sensitivity. The employer is also interested in communication skills and literacy. Studies by Richards (1980), Peterson (1983), Miguel et al., Hollenbeck and others cite all of these factors as important elements.

In the present study, scores from attitude tests conducted in high school are included as explanatory variables of the successful transition from school-to-work. These include composite measures of the individual's self-concept, locus of control (sense of control over one's fate), work attitudes, family orientation and community orientation. If these are to be valid predictors of the successful transitions, (King 1984 shows that locus of control has a positive effect), the interviewer must be adept at inferring them since these scores are not available to perspective employers. Given the subjectivity of the interview process, it is not clear that the scores used in this analysis match the more subjective judgments of the interviewer.

Academic ability also should have a role for employers who desire communication skills and language literacy. Academic courses should develop these skills more than vocational courses. The number of credit hours earned in academic courses is included among the explanatory variables. Also included as direct measurements of communication and literacy skills are standardized test scores in reading, vocabulary, and math.

Obviously, personal appearance, a trait that is important to employers and easily observable during the interview, can not be measured in this study. As a substitute, the family's income and parent's education are included as

variables that may be indirectly (and imperfectly) corrolated with personal grooming.

Academic record. On an intuitive basis, an individual's high school academic record should be extremely relevant in the hiring process following high school completion. Collins (1974) finds that a high school diploma is an important factor in the decision to hire an individual as an indication of perserverance, self-discipline, and drive. It is not as important as an indicator of knowledge. Consistent with this notion, Hill (1979) and Blakemore and Low (1984) find that high school dropouts do not earn as much as high school graduates in their initial post-high school jobs. A variable indicating the graduation status of the individual is added to the variable list in this study to further test this effect.

Because employers seek workers who can learn new skills easily and who possess deductive and communicative skills, the student's relative academic success also should be an important factor. The student's grade point average is one possible indication of academic success and trainability. The type of courses for which the grades are rewarded is also important—whether they are academic or vocationally oriented courses. The model that is used in this study includes the GPA and academic/vocational orientation of the student as a possible influence on the transition process.

However, contrary to intuitive appeal, Bishop (1985) finds that employers make very little use of high school transcripts in their hiring decisions. This is supported by Malizio and Whitney (1984). Some of the reasons cited for the surprising finding raise questions about the informational content of transcripts. Many employers find that grade inflation has discredited the GPA, a problem that often is thought to have worsened throughout the decade of 1970. Complaints about course titles that do not reveal the true nature of the course material is also heard. Other high school experiences that may complement

academic work, such as school awards and active participation in extracurricular activities, also are not reported on transcripts. This further erodes the usefulness of high school transcripts.

Another problem involves an issue of timing. Bishop finds that transcripts are sent too slowly to be useful to employers, if sent at all. For example, only 93 responses for high school records were received by a Columbus, Ohio employer in 1982 after requesting records for more than 1,200 applicants.[1]

Two issues are relevant for this study. The first is simply, "Are high school GPAs used to hire new entrants in the labor market following high school?" The second is "Have GPAs become less useful during the 1970s because of grade inflation and/or a less responsive school system?"

Another issue is relevant, but beyond the scope of this study. The high school GPA may not contribute to the labor market success in the school-to-work transition period for the reasons already stated. But if academic skills are transferable as job-training skills, the more successful students ultimately may enjoy greater labor market success in their later work experiences. In such an event, students need to be encouraged to study diligently in high school even if their initial payoff is negligible.

There is some evidence that high school achievement is rewarded more at a later point in the life cycle. As individuals become older, some studies indicate that students with better academic records tend to receive significantly higher wage rates. Many of the studies follow a cohort of indiviudals through time and thus provide evidence on how the relationship between high school achievement and wages evolve as the cohort matures.

Hause's (1975) analysis of Roger's data on white males who graduated around 1939 finds that a standard deviation change of an ability measure leads to higher wages ranging from 3.3 percent for 29 and 34 year olds to 7.8 percent

for 44 years olds. Taubman and Wales (1975) show a negative relationship between academic ability and earnings on the first job, a 4.2 percent response when workers are in their early 30s and a 6.6 percent response when the workers reaches the mid 40s. Hauser and Daymont's (1977) analysis of social security earnings data for a cohort of 1957 graduates of Wisconsin high schools finds that an essentially zero response at age 25 grew to 3.7 percent by age 30.

This pattern actually seems to be established quite early in the life cycle. Hauser's analysis of Project Talent data on high school graduates not attending college estimates a negative impact of ability on earnings one year out of high school and a strong 6.1 percent increase 5 years out of high school. In an analysis of the Class of 1972 data, Meyer (1982) estimates that a one standard deviation increase in class rank and in an ability test score raises weekly earnings by 1.2 percent at age 19, 1.9 percent at age 22 and 4.3 percent at age 25.

A number of the more recent studies have examined cognitive ability's impact on all three of the key labor market outcomes--yearly earnings, employment and hourly wage rates--for those not attending college. Typically, ability has a significant positive effect on employment and yearly earnings. Further, the percentage response of yearly earnings is much larger than the percentage response of the hourly wage (Kang and Bishop 1984; Meyer 1982; Meyer and Wise 1981; Daymont and Rumberger 1982).

Since there are differences in how ability is measured and which control variables are included in the models, comparisons across studies are difficult to make. Nevertheless, there seems to be a strong tendency for school achievements' impact on earnings to be more positive in recent cohorts than in older cohorts. The studies of cohorts that attended high school in the 1930s, 40s and 50s estimate that for males not attending college there is a negative effect of cognitive ability and achievement on earnings immediately after high

school. Studies of the graduating classes of 1972 and 1980 report a positive relationship between ability and earnings immediately after high school (Meyer 1982; Daymont and Rumberger 1982; Kang and Bishop 1984), although this is often due to greater annual employment and not higher wage rates (Kang and Bishop).

Given the evidence, it is clear that the initial school-to-work transition period can be overemphasized in terms of the impact of academic ability. Nevertheless, the transition period is an important stage in the life cycle and worthy of investigation on its own. It is also important that a consistent menu of variables be used when studying two different time periods, as is done in the present analysis. In this way, time period differences can be established without concern about variable differences and measurement discrepancies.

Vocational preparation. Advocates of vocational preparation while in high school argue that many students cannot be motivated by a sole reliance on academic courses. These students have no interest in attending an institution of higher education, and are more prone to leave high school before receiving a diploma. For this type of student, vocational courses are meant to increase interest in school, reduce discipline problems caused by boredom or antagonism toward the school, and prepare the student with some marketable skills.

Critics of vocational courses argue that the increased reliance on vocational training sacrifices the basic cognitive skill development of academic courses. According to these experts, the tradeoff of market skills for basic cognitive skills has a detrimental effect for the student, at least later in life.

In the present analysis, the number of vocational hours taken in high school is included to test the impact of vocational training on the school-to-work transition. No attempt is made to find a longer term impact. Also

included is a variable for participation in a formal cooperative vocational program.

Other high school experiences. If reliable information is available, employers also are interested in the study habits of students, self-discipline, outside interests and leadership abilities. This study includes proxies for these types of traits. A variable describing some of the factors that interfere or distract the student from school performance is included as an explanatory variable. Finally, self-reported measures of the number of hours spent on homework, the leadership positions in extracurricular activities, and participation in the Upward Bound or Talent Search programs are analyzed in terms of the impact on the labor market success.

III. EMPIRICAL ANALYSIS

1. The Data Bases

Two different data sets are employed in this study to analyze any possible differences over two distinct time periods, 1972-73 and 1980-81. Nearly identical information is available in both sets of data, and both are longitudinal in nature. The samples permit the analysis of a similarly aged cohort--high school seniors in 1972 and seniors in 1980--as they complete the initial transition from high school to work.

The National Longitudinal Survey of the High School Class of 1972 (NLSHS) consists of information on over 22,000 high school seniors surveyed in 1972, with follow-up surveys available for 1973, 1974, 1976 and 1979. All individuals surveyed in 1972 were seniors at the time. The initial survey provides the information on the individual's high school programs and activities, while the remainder of the data is taken from the 1973 follow-up survey. In the 1973 follow-up, data are available for the individual's employment and educational histories as of October 1973, approximately 16 months after high school completion, as well as retrospective information starting in October 1972, about 4 months after high school completion.

The High School and Beyond (HSB) data base consists of longitudinal observations of over 60,000 sophomores and seniors surveyed in 1980 with follow-up surveys conducted for 1982 and 1984. Approximately half of the individuals surveyed were sophomores and half were seniors at the time of the initial 1980 survey. Our analysis is limited to those individuals who were seniors to provide comparability with the NLSHS data set. Variables pertaining to the individual's high school programs and activities are constructed from the initial 1980 survey instrument. The remainder of the data is taken from the 1982 follow-up survey which provides employment and educational histories in 1982 as well as retrospective information pertaining to 1981.

2. Sample Selection

As we are primarily interested in an individual's labor market experience in the school-to-work transition period, individuals who attend school full time after high school or who are engaged in active military service are excluded from the sample. The full-time student exclusion limits the sample size greatly because a large proportion of high school graduates in the two data bases choose to continue their education full time. The sample sizes, however, are still quite large so the statistical analysis is not hindered. The sample does include individuals who enroll in an institution of higher education part time or who enlist in the military reserve. The samples are further stratified by sex to examine if the various determinants of the school-to-work transition are different for males and females.

The complete list of variables pertinent to this study and their description is contained in Table 1. Table 2 contains the mean values for all variables in the NLSHS sample of young workers, and Table 3 provides the means for the HSB sample. The three measures of labor market success chosen for this project are wage rates in the transition period, the employment rate during the period and annual income. Information on wages are provided for the beginning of the transition period (WPH0) and approximately a year and a half after high school (WPH1). In the NLSHS, the average starting wage for males rises from \$2.44 per hour initially to \$2.97 one year later.[2] The corresponding wage rates for females are \$2.01 and \$2.31. After eight years of high inflation rates, males in the HSB sample earn a \$4.29 starting wage rate which rises to \$4.93 in a little more than a year. For females in the HSB, wages go from \$3.66 just out of high school to \$4.09 at the end of the period.

Similarly, annual income is less for females than males. In the NLSHS, females earn \$3,941 while males earn \$4,892 during 1973, the first year after

high school. In the HSB, females earn only $3,929 on average in 1981 and males rise to $6,830. Part of the lower annual earnings of females is attributable to the lower hourly wage rates and part to less months of employment. During the transition period, males in the NLSHS are employed 84 percent of the time and females 82 percent. In the HSB, the employment rates are 80 percent and 68 percent respectively. The low employment rate of females in the HSB explains much of the very low annual earnings.

Variables that are expected to explain the labor market experience of the youth are also listed in the tables under four categories--personal characteristics, high school experience, home environment and high school location. A highlight of important sample differences is provided.

In the NLSHS, a much larger proportion of the sample has been enrolled part time in school than in the HSB in the year after high school. Part of the explanation may be the military environment. By 1980, the military is an all-volunteer service while 1972 is nearing the end of the draft during Vietnam. Student deferments from the draft may be a partial explanation. Another explanation is the racial composition of the samples. In general, minorities enroll in institutions of higher education less frequently than white youth; and the HSB heavily oversamples racial minorities.

There are no obvious patterns in terms of attitudes except that males have a greater work orientation than females in both samples and less family orientation. Females exhibit a higher self-concept in the HSB and greater sense of control (locus of control) in the NLSHS.

Comparing the high school experiences, grade point average (GPAs) are higher for females and higher in the 1980 HSB survey. Perhaps the sex difference is partially explained by a somewhat higher measure of interference (distractions) for males. It also can be explained by less hours devoted to homework and more hours spent working at a job for males. In spite of these

differences, graduation rates are nearly identical in the samples. A case can be made that the higher GPAs in the HSB are due to grade inflation. Standardized test scores are lower in the HSB (with no obvious sex differences) and hours devoted to studying declined substantially between 1972 and 1980.[3]

In terms of course content, the NLSHS sample reports slightly more academic credit hours taken by the students and substantially more vocational hours than found in the HSB. Females are somewhat more vocationally oriented than males in the NLSHS and slightly less so in the HSB. Students in the HSB are more prone to take leadership positions in extracurricular activities, and more likely to have participated in a cooperative vocational program, Upward Bound or Talent Search.

The only other significant difference between samples are that females tend to be married more often in both samples; and the HSB is more heavily populated in the rural and suburban areas.

3. Regression Results

In this section of the study, the results of multivariate regression analysis is presented. Separate regressions are run for males and females and for the NLSHS and HSB samples. In Tables 4 to 11, ordinary least squares coefficients are reported for the three labor market outcomes in the transition period—wage rates, annual earnings and employment. An asterisk is placed by the coefficient to indicate that the variables is significantly different from zero based on a one-tail t-test at the 90 percent confidence level. In general, the results are very mixed, making it difficult to draw many strong conclusions.

Working during school. The number of hours that a student works in the senior year of high school generally has a positive impact on labor market performances. This is particularly true for the high school class of 1980.

For the class of 1972, there is no statistically significant effect on either the early wage rate or the later wage rate, but the employment rate is increased significantly. Corresponding to the greater employment, annual earnings for males are raised about $32 for every hour of high school work. Quite perversely, however, female earnings drop by $61.

In the HSB, male and female wage rates are increased by .2 percent to .3 percent for every extra hour of work during the senior year. Employment rates rise rather sharply and annual earnings in 1981 increase $70 and $57 for males and females respectively.

The number of hours worked by a senior is one of the most reliable predictors of a successful transition from school-to-work. Time devoted to other activities, including homework and extracurricular activities do not have as consistent an impact on the early labor market performance variables. However, it may be that the impact of high school work is not very durable. The wage advantage of working students may decay in later years as the nonworking students gain labor market experience of their own.

Attitude traits. The effect of attitudes on labor market success, as measured by test scores administered in high school, are quite mixed. Locus of control is usually positive and statistically significant--a feeling of control over one's destiny tends to cause more favorable labor market outcomes in terms of wages, employment and earnings. This is particularly true of the HSB sample. There is no obvious sex differences. A favorable attitude towards work also is most often positive, but is statistically significant in only four cases at the 90 percent confidence level. No clear differences exist across time periods or sex groups. Quite perversely, a greater feeling of self-concept always has a negative effect on wage rates, and often negatively influences earnings and employment. No obvious explanation is available.

and family give inconsistent results. Statistical significance is generally low and the signs on the coefficients switch randomly. This is not entirely surprising because these latter two attitudes clearly are less pertinent to the employer.

Attitudes of young workers are considered very important to the employer in the hiring process according to the studies discussed above. These results mildly support this notion in terms of work attitudes and locus of control; but strangely, a positive feeling of self-concept leads to lesser success in the labor market during the first year of work following high school. Employers do not seem to be any more or less reliant on these attitudes in the early 1980s compared to the 1970s; nor are there any apparent differences for the sex groups.

It is hypothesized above that higher income and educational attainment of the parents may lead to a more successful transition from school to work because the student may present himself/herself better in the interview. Higher family income does have a reasonably consistent positive impact on the three measures of work success. However, the statistical significance of the parent's educational attainment is much less than income and the coefficients are often wrongly signed. It is entirely possible that the father's eduction is highly corrolated with mother's education, leading to multicollinearity problems in the statistical procedure. This problem tends to cause unreliable estimates of the coefficients.

Another attitude is related to the student's self-discipline. The number of hours the student spends doing homework and the degree to which the student encounters distractions are included in the regression model for this purpose. These particular characteristics are difficult to detect for the interviewer, but if detectable, the traits may provide considerable information about the individual.

Again the results are inconsistent. The number of hours spent studying is positive only half the time (primarily for wage rates) and statistically significant only one of these times. The measure of interference is correctly signed (negative) only nine times, but is statistically significant in four of these cases. There is very little evidence that study intensity alone pays large dividends in the early transition period. Two caveats seem relevant. Self-discipline may not be observable to employers until more work experience is gained, at which time it is rewarded with employment stability and higher wages. Secondly, study intensity may be reflected in the student's academic achievement, and the payoff may occur through observable achievement measures. Attention is now turned to measures of academic achievement.

Academic record. A wide array of variables that measure the student's academic record are included in this study--the high school grade point average, the receipt of a diploma, the number of academic credit hours completed, and scores on three achievement tests for math, reading and vocabulary. Is academic achievement rewarded in the first year of work experience following high school? Has there been a change in emphasis on academic records in the last decade because of difficulty in receiving timely high school records of the student?

There is some support that the high school academic record influences labor market outcomes. There is no evidence that the emphasis on academic achievement has changed between 1972 and 1980. Graduation from high school almost always has a positive effect on wages, employment and earnings, although statistical significance is achieved at the 90 percent level only twice. Likewise, higher GPAs tend to improve the rewards to work. Annual earnings are always increased. However, the starting wage immediately after high school does not seem to be strongly related to the student's GPA, and in fact is

negatively signed at a low significance level in three cases. This implies that the problems discussed earlier about delays in receiving transcripts from high schools may be a deterent for using official academic records for the beginning worker. The success that students with higher GPAs achieve in the later stages of the transition year (wages a year and a half following high school and annual earnings) apparently manifests itself through the individual's work and training efforts. For females, the rewards are received in terms of both wage rates and employment. Males improve only through higher wages--there is no statistically significant effect of GPAs on employment rates.[4] Females may benefit more from their high school success because their work tends to require more cognitive abilities while non-college attending males accept manual work more often.

The standardized test scores tend to be mildly positively related to labor market success. However, with the exception of the results for the employment rates for the 1980 class, there is little consistency or statistical significance. Since these tests are not made available to employers, again, any effect that they may have on labor market outcomes will occur only at a later point in the life cycle as the workers display their cognitive abilities to the employer.

A review of the academic variables to this point give some indication that a back-to-basics approach in eduction could improve the transition from school to work. However, the last variable in this set is paradoxical. As students increase the number of credit hours in academically oriented courses, all three measures of labor market success--wages, employment and earnings--usually decline. Females seem to be most adversely affected. A high level of statistical significance is achieved in only three of the cases; nevertheless, this is a puzzle.

Vocational preparation. A reorientation towards basic core requirements may not provide as large a benefit to young workers as is often conjectured. The results on the variable measuring the number of vocational hours confirms this. An increase in vocationally oriented courses generally leads to better wages, employment and earnings. Statistical significance quite often is strong. An exception to this is the male cohort from the 1972 class. The coefficients on vocational hours for this group is always negative, although statistical significance is low. Apparently the vocational programs for males have improved dramatically since 1972. Quite obviously, these results give reason for further analysis before the secondary school system is drastically redesigned. At least during the early transition period, vocational course work improves the success rate for young workers.

Similar evidence is provided by participation in a cooperative vocational program, although the evidence is not quite as convincing. Positive effects are very convincing for the high school class of 1972 for all three labor market outcomes. In contrast, the class of 1980 has lower wages and employment rates after participating in a cooperative vocational program. For males particularly, the effect is rather strong and statistically significant. The effect on earnings is positive but is not statistically significant. Further investigation is warranted here. An apparently successful program has deteriorated badly in less than ten years, and researchers should examine the reasons for the recent failures.

Other high school experiences. The final variables of interest in this study involve participation in extracurricular activity, the Upward Bound or Talent Search programs, and CETA (Class of 1980 only).[5] Generally, the results are quite weak. Statistical significance is low and coefficients exhibit some random sign changes. Taking a leadership role in an extracurricular activity tends to have a positive labor market effect for males and negative for

females. However, very little confidence is placed on these point estimates. CETA also seems to have a favorable impact for males and negative effect for females, but a high level of statistical significance is never achieved for any of the events.

IV. SUMMARY AND CONCLUSIONS

The focus of this study is the analysis of the transition from high school to work. In particular, the effects of the student's high school experiences are investigated. A very rich menu of variables representing the high school experience is included in multivariate regression models of the initial work experiences. For simplicity, the success/failure of the transition to work is defined by easily observed labor market outcomes--the wage rate, employment rate and annual earnings of the individual in the first year and a half following the completion of high school.

The study also analyzes the trends in the relationship between high school experiences and the transition variables. The labor market success of young workers has declined steadily for twenty years. If the trend is due to high school conditions, the comparison in this study should detect the problems. For purposes of investigating the trends, two separate longitudinal cohorts are studied using identical regression models with nearly identical variables. Data for the high school senior class of 1980 are collected from the High School and Beyond Survey, and compared to the class of 1972, collected from the National Longitudinal Survey of the High School Class of 1972.

The study is particularly relevant at this time because the nation is embarked on a serious reevaluation of its school systems. A back-to-basics movement for secondary education is a popular remedy for the problems encountered by young workers in their initial labor market experiences. A call for more academic work in math and language development concurrent with a deemphasis of direct vocational training is often recommended. More homework, discipline and general diligence applied to study habits are also recommended. To test these propositions, variables that represent the academic nature of the

course work and the individual student's study habits are included in the regression models.

The findings in general are not conclusive. With regard to any trends, no clear evidence is found that the high school academic experience has led the decline in labor market experiences. Two contrasting trends in vocational training, however, are detected. For males, the vocational programs offered in high schools seem to have improved dramatically between 1972 and 1980. Conversely, the cooperative vocational programs that are successful for the class of 1972 no longer function well by 1980.

Contrasting results are found for the contention that better academic preparation eases the transition from school to work. Only weak evidence is found in support of the notion that better disciplined study habits improve labor market outcomes. In fact, hours spent on a job during the senior year in high school are very important for the early work experiences of youth. On the other hand, a better academic record does pay dividends--higher GPAs and a diploma are generally rewarded in the labor market.

In sharp contrast, a greater emphasis on academic credit hours consistently is related negatively to wage rates, employment and earnings in the first year following high school for both the 1972 and 1980 classes. Likewise, vocational courses seem to have a positive payoff, particularly for the class of 1980. Certainly, these findings indicate that caution is warranted before the high school curricula is reoriented to academic studies.

Mixed results are found for other variables of interest such as attitude development, achievement tests and participation in extracurricular activities. Again, no obvious time trend is apparent.

This study has limited the analysis to the very early stages of the school-to-work transition. Obviously, a caveat is pertinent because of this

restriction. Other studies indicate that academic achievement is rewarded to a greater degree as the worker matures. In such an event, students and policymakers should balance the benefits of the long-term gains to academic success with the apparent short-term rewards for vocational training. Some middle ground may be optimal. Further side-by-side analysis of the 1972 and 1980 cohorts should be attempted to construct a longitudinal view of the transition process. Other labor market characteristics also may be relevant in measuring the success of an academic versus vocational curricula. Characteristics such as job satisfaction, potential for job advancement and working conditions also should be analyzed.

ENDNOTES

[1]Official transcripts are important because self-reporting by applicants is particularly unreliable if no official follow-up is made.

[2]Tables 2 and 3 report the logarithm of wages because the wage model is loglinear in the next section.

[3]Recall that the samples consist of high school seniors who did not attend college full time. Generalizations should not be extended to the college-going population.

[4]Because the statistical significance of the coefficients are not uniformly high, comparison of the point estimates of the coefficients are very unreliable. Comparison of magnitude differences across time periods and sex groupings is not advised in this case.

[5]All other variables in the regressions that are not discussed are included as control variables, but are not related to the policy issues raised in this study.

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TABLE 1

VARIABLE DESCRIPTIONS

Dependent Variables

WPH0: Logarithm of the individual's hourly wage rate shortly following high school completion.

WPH1: Logarithm of the individual's hourly wage rate approximately 16 months following high school completion.

EARN: Yearly earnings of the individual in the year following high school.

EMP: The fraction of months worked by the individual in the year following high school.

Personal Characteristics

SELF: Self concept composite - includes individual's feelings about self, self worth, ability to do things and self-satisfaction (normalized).

LOCUS: Locus of control composite - includes individual's feelings about luck versus hard work, trying to get ahead, planning, and accepting things as they are (normalized).

WORK: Work composite - includes individual's feelings about importance of being successful in work, money and steady work (normalized).

COMM: Community composite - includes individual's feelings about importance of being a leader in the community, giving children better opportunities and working to correct social problems (normalized).

FAM: Family composite - includes individual's feelings about importance of finding a good marriage, living close to parents and getting away from present community (normalized).

HCAP: A variable equal to one if the individual possesses a handicap and zero otherwise.

SIB: The number of siblings of the individual.

HISP: A variable equal to one if the individual is Hispanic and zero otherwise.

BLACK: A variable equal to one if the individual is Black and zero otherwise.

STU: A variable equal to one if the individual is a part-time student one year after high school and zero otherwise. Individuals who have engaged in full-time school at any time after completion of high school are excluded from the sample.

TABLE 1 (cont.)

RESRV: A variable equal to one if the individual is in the military reserves one year after high school and zero otherwise. Individuals who have been on active military duty at any time after completion of high school are excluded from the sample.

AGE: The individual's age. Due to the extreme homogeneity of ages in the NLSHS sample, this variable is used only in the HSB data set.

High School Experience

INT: A measure of the degree of interference faced by the individual in high school. INT equals 4 if the individual had substantial difficulty in adjusting to high school routine or had substantial difficulty due to poor study habits. INT equals 3 if the individual had substantial difficulty with either factor and moderate difficulty with the other. INT equals 2 if the individual had substantial difficulty with either factor and no difficulty with the other or if the individual had moderate difficulty with both factors. INT equals 1 if the individual had moderate difficulty with either factor and no difficulty with the other. INT equals 0 if the individual had no difficulty with either factor.

HSGPA: The individual's High School Grade Point Average measured on a 100-point scale.

HJOB: Hours per week devoted to a job during the individual's senior year of high school.

HSTUD: Hours per week devoted to homework during the individual's senior year of high school.

GRAD: A variable equal to one if the individual received a high school degree or its equivalent and zero otherwise.

MATHS: Math score the individual received on a test administered to all sample participants.

VOCS: Vocabulary score the individual received on a test administered to all sample participants.

READS: Reading score the individual received on a test administered to all sample participants.

LEADER: The number of leadership positions the individual held in high school in athletics, cheerleading, band, hobby clubs, honor clubs, student newspapers, subject clubs, student government and vocational education extracurricular activities.

COVOC: A variable equal to one if the individual participated in a cooperative vocational education or work study program in high school and zero otherwise.

TABLE 1 (cont.)

UPTAL: A variable equal to one if the individual participated in an Upward Bound or Talent Search program in high school and zero otherwise.

CETA: A variable equal to one if the individual participated in a CETA program in high school and zero otherwise. CETA programs were not funded at the time of the NLSHS survey, hence, this variable is available only in the HSB.

ACHR: The number of semesters of academic courses taken by the individual in high school. ACHE includes courses in mathematics, English, foreign language, social science and science.

VOCHR: The number of semesters of vocational courses taken by the individual in high school. VOCHR includes courses in business/office management, trade/technical and other vocational categories.

Home Environment

FED: The number of years of education completed by the individual's father.

MED: The number of years of education completed by the individual's mother.

PINC: Parental income measured in thousands.

INCNA: A variable equal to one if the individual's parents' income is unavailable in the data and zero otherwise.

MS: A variable equal to one if the individual is married one year after high school and zero otherwise.

KIDS: A variable equal to one if the individual has one or more child dependents one year after high school and zero otherwise.

High School Location

RURAL: A variable equal to one if the individual's high school is in a rural environment and zero otherwise.

SUBURB: A variable equal to one if the individual's high school is in a suburban environment and zero otherwise.

With the NLSHS Data

NE: A variable equal to one if the individual's high school is in the North East region and zero otherwise.

NC: A variable equal to one if the individual's high school is in the North Central region and zero otherwise.

S: A variable equal to one if the individual's high school is in the Southern region and zero otherwise.

TABLE 1 (cont.)

With the HSB Data

NE: A variable equal to one if the individual's high school is in the New England Census Region and zero otherwise.

SA: A variable equal to one if the individual's high school is in the South Atlantic Census Region and zero otherwise.

ESC: A variable equal to one if the individual's high school is in the East South Central Census Region and zero otherwise.

WSC: A variable equal to one if the individual's high school is in the West South Central Census Region and zero otherwise.

ENC: A variable equal to one if the individual's high school is in the East North Central Census Region and zero otherwise.

WNC: A variable equal to one if the individual's high school is in the West North Central Census Region and zero otherwise.

MOUNT: A variable equal to one if the individual's high school is in the Mountain Census Region and zero otherwise.

PAC: A variable equal to one if the individual's high school is in the Pacific Census Region and zero otherwise.

TABLE 2

MEANS FOR NLSHS DATA

Dependent Variables	Male	Female
WPHO	.891	.699
WPH1	1.087	.839
EARN	4892.571	3941.236
EMP	.840	.823
Personal Characteristics		
SELF	-.000	.005
LOCUS	-.096	.090
WORK	.092	-.071
COMM	.006	-.003
FAM	-.028	.026
HCAP	.012	.009
SIB	1.921	2.231
HISP	.040	.052
BLACK	.133	.140
STU	.523	.452
RESRV	.022	.002
High School Experience		
INT	1.309	.937
HSGPA	71.736	77.482
HJOB	18.427	13.655
HSTUD	3.056	4.645
GRAD	.990	.991
MATHS	49.652	48.164
READS	48.358	50.105
VOCS	48.963	49.769
LEADER	.301	.347
COVOC	.106	.133
UPTAL	.027	.028
ACHR	9.422	9.163
VOCHR	5.935	6.926
Home Environment		
FED	11.637	11.779
MED	11.622	11.640
PINC	9.677	7.959
INCNA	.146	.218
MS	.141	.341
KIDS	.052	.068

TABLE 2 (Cont.)

High School Location	Male	Female
RURAL	.267	.231
SUBURB	.240	.258
NE	.173	.225
NC	.272	.269
S	.319	.338

TABLE 3

MEANS FOR HSB DATA

Dependent Variables	Male	Female
WPHO	1.457	1.298
WPH1	1.596	1.409
EARN	6829.598	3928.621
EMP	.795	.683
Personal Characteristics		
SELF	.052	.116
LOCUS	-.260	-.213
WORK	.141	-.100
COMM	.092	.047
FAM	-.036	.061
HCAP	.024	.013
SIB	3.440	3.562
HISP	.254	.252
BLACK	.423	.455
AGE	18.216	18.071
STU	.246	.276
RESRV	.026	.004
High School Experience		
INT	1.388	1.155
HSGPA	77.049	79.432
HJOB	13.732	9.826
HSTUD	2.261	2.914
GRAD	.976	.984
MATHS	47.331	45.410
READS	47.749	47.694
VOCS	47.686	47.638
LEADER	.524	.497
COVOC	.338	.302
UPTAL	.051	.053
CETA	.140	.150
ACHR	8.759	8.944
VOCHR	2.805	2.348
Home Environment		
FED	12.198	12.034
MED	12.076	11.850
PINC	19.214	17.166
INCNA	.098	.125
MS	.104	.225
KIDS	.051	.124

TABLE 3 (cont.)

High School Location	Male	Female
RURAL	.321	.289
SUBURB	.418	.428
NE	.038	.040
SA	.180	.203
ESC	.059	.055
WSC	.166	.158
ENC	.159	.158
WNC	.058	.049
MOUNT	.069	.065
PAC	.145	.143

TABLE 4

INITIAL POST HIGH SCHOOL WAGES - NLSHS DATA
Dependent Variable = WPH0

Personal Characteristics	Male	Female
SELF	-.042	-.063*
LOCUS	.071*	.020
WORK	.036	.015
COMM	-.004	.001
FAM	-.093*	.023
HCAP	.083	-.058
SIB	.000	-.005
HISP	.350*	.046
BLACK	-.021	-.024
STU	.027	-.008
RESRV	.165	-.238
High School Experience		
INT	-.042*	-.007
HSGPA	-.001	-.000
HJOB	.001	.000
HSTUD	.006	-.000
GRAD	.276*	.171
MATHS	.001	.000
READS	-.003	-.001
VOCS	.002	.000
LEADER	.042	-.026
COVOC	.092	.083*
UPTAL	-.050	-.037
ACHR	.003	-.003
VOCHR	-.003	.003
Home Environment		
FED	-.003	.001
MED	.007	-.010
PINC	.006	.007*
INCNA	.162*	.039
MS	.067	-.010
KIDS	-.051	.056

TABLE 4 (Cont.)

High School Location	Male	Female
RURAL	-.003	-.076*
SUBURB	-.035	.068*
NE	-.024	.189*
NC	.013	.034
S	-.081	.072
CONSTANT	.436	.588*
Sample Size	332	361
R^2	.127	.097

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 5

INITIAL POST HIGH SCHOOL WAGES - HSB DATA
Dependent Variable = WPH0

Personal Characteristics	Male	Female
SELF	-.032*	-.011
LOCUS	.009	-.011
WORK	-.012	-.001
COMM	-.003	-.006
FAM	-.038*	-.012
HCAP	-.271*	-.014
SIB	-.011*	-.012*
HISP	-.094*	-.014
BLACK	.052*	.018
AGE	.082*	-.036*
STU	.034	.009
RESRV	-.207*	-.008
High School Experience		
INT	-.005	-.002
HSGPA	-.001	.000
HJOB	.002*	.002*
HSTUD	.011*	.005
GRAD	-.112	.048
MATHS	-.000	-.002
READS	-.001	-.000
VOCS	-.001	-.000
LEADER	.009	.001
COVOC	-.033*	-.020
UPTAL	.083	-.015
CETA	.017	-.023
ACHR	.003	-.002
VOCHR	.006	.008*
Home Environment		
FED	-.007	-.013*
MED	-.007	.016*
PINC	.005*	.002*
INCNA	.027	.026
MS	.051	.043*
KIDS	-.025	.098

TABLE 5 (Cont.)

High School Location	Male	Female
RURAL	.063*	-.063*
SUBURB	.050*	-.040*
NE	-.055	-.004
SA	-.113*	-.046
ESC	-.054	-.053
WSC	.036	-.003
ENC	-.096*	-.029
WNC	-.045	-.010
MOUNT	.024	-.027
PAC	-.033	.003
CONSTANT	.323	1.946*
Sample Size	406	516
R^2	.168	.086

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 6

ONE YEAR POST HIGH SCHOOL WAGES - NLSHS DATA
Dependent Variable = WPH1

Personal Characteristics	Male	Female
SELF	-.073*	-.061*
LOCUS	.017	-.022
WORK	.079*	.094*
COMM	-.093*	.010
FAM	-.089*	-.001
HCAP	.112	-.058
SIB	.011	.003
HISP	.188*	.048
BLACK	.114*	.085*
STU	.000	.020
RESRV	-.144	-.007
High School Experience		
INT	-.029*	-.023
HSGPA	.002	-.001
HJOB	.001	.002
HSTUD	.004	.006
GRAD	.252	.210
MATHS	-.000	.009
READS	.003	-.002
VOCS	-.000	.004*
LEADER	.064*	-.023
COVOC	.083	.068
UPTAL	-.044	.114
ACHR	.002	-.010*
VOCHR	-.002	.007*
Home Environment		
FED	-.007	-.001
MED	.018*	-.002
PINC	.003	.009*
INCNA	.028	.056
MS	.278*	-.072*
KIDS	-.095	-.003

TABLE 6 (Cont.)

High School Location	Male	Female
RURAL	-.005	-.140*
SUBURB	-.030	.010
NE	.101*	.123*
NC	.054	-.037
S	-.060	.060
CONSTANT	.456	.456*
Sample Size	405	458
R^2	.138	.139

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 7

ONE YEAR POST HIGH SCHOOL WAGES - HSB DATA
Dependent Variable = WPH1

Personal Characteristics	Male	Female
SELF	-.041*	-.019
LOCUS	.051*	.005
WORK	.001	.007
COMM	-.018	-.007
FAM	-.012	-.004
HCAP	-.088	.043
SIB	-.004	-.007
HISP	-.070*	-.010
BLACK	.045	.042*
AGE	.042*	.001
STU	.007	.007
RESRV	-.264*	-.091
High School Experience		
INT	-.015	.007
HSGPA	.000	.003*
HJOB	.003*	.002*
HSTUD	.007	.001
GRAD	.077	.047
MATHS	.001	-.001
READS	-.002	.000
VOCS	-.001	.000
LEADER	.002	-.005
COVOC	-.062*	-.021
UPTAL	.058	.038
CETA	.037	.028
ACHR	-.001	-.008
VOCHR	.011*	.013*
Home Environment		
FED	-.000	-.013*
MED	-.016*	.017*
PINC	.005*	.001
INCNA	.006	.028
MS	.078*	.017
KIDS	-.005	-.045

TABLE 7 (Cont.)

High School Location	Male	Female
RURAL	.078*	-.053*
SUBURB	.084*	-.011
NE	.019	-.009
SA	-.091*	-.000
ESC	-.036	-.052
WSC	.124*	.004
ENC	-.060	.018
WNC	-.073	.034
MOUNT	.083	-.060
PAC	.040	.037
CONSTANT	.838*	1.067*
Sample Size	406	516
R^2	.199	.079

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 8

EARNINGS POST HIGH SCHOOL - NLSHS DATA
Dependent Variable = EARN

Personal Characteristics	Male	Female
SELF	-7.3	86.7
LOCUS	47.4	1359.8*
WORK	261.4	-122.1
COMM	416.2	811.3
FAM	539.6	-700.9
HCAP	202.1	455.0
SIB	-186.6	115.1
HISP	3676.2*	1284.1
BLACK	243.5	-579.2
STU	-7.8	167.2
RESRV	919.7	6511.4
High School Experience		
INT	-593.6*	1648.3*
HSGPA	53.1*	47.7
HJOB	31.8*	-61.1*
HSTUD	-110.2*	-18.0
GRAD	-491.1	5164.1
MATHS	21.5	45.5
READS	25.5	-56.1
VOCS	-3.2	20.0
LEADER	155.0	-1334.9*
COVOC	1071.7*	-386.7
UPTAL	2176.2	-1479.1
ACHR	-99.4	45.4
VOCHR	-33.9	92.7
Home Environment		
FED	-11.3	-602.3*
MED	80.3	264.0
PINC	127.0*	286.9*
INCNA	2750.2*	4559.5*
MS	1293.4*	-1825.1*
KIDS	-1975.6*	-1300.9

TABLE 8 (Cont.)

High School Location	Male	Female
RURAL	308.9	1644.5*
SUBURB	98.3	1190.8
NE	1126.7*	2627.3*
NC	1339.5*	1172.4
S	212.3	2374.6*
CONSTANT	-4402.3	-13926.7*
Sample Size	196	182
R^2	.220	.235

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 9

EARNINGS POST HIGH SCHOOL WAGES - HSB DATA
Dependent Variable = EARN

Personal Characteristics	Male	Female
SELF	-57.7	-418.0*
LOCUS	680.4*	529.6*
WORK	-93.9	204.5*
COMM	30.7	-3.3
FAM	712.7*	238.2*
HCAP	-859.9	117.0
SIB	-91.8	-85.7*
HISP	-98.6	30.1
BLACK	-44.4	-876.5*
AGE	388.2	-269.5*
STU	-418.5	368.6
RESRV	64.8	-128.1
High School Experience		
INT	265.7*	60.0
HSGPA	21.4	30.5*
HJOB	69.8*	57.2*
HSTUD	-30.0	-13.1
GRAD	261.1	-93.6
MATHS	-34.8*	29.4*
READS	-11.6	10.2
VOCS	56.0*	-2.8
LEADER	-146.8	-11.0
COVOC	123.1	192.5
UPTAL	-757.1	-148.6
CETA	590.6	-38.7
ACHR	-104.1	-208.8*
VOCHR	309.1*	191.8*
Home Environment		
FED	-72.5	-86.0*
MED	-28.7	-71.2
PINC	67.2*	17.8*
INCNA	-650.2	210.9
MS	2479.8*	238.4
KIDS	-671.0	-1652.9*

TABLE 9 (Cont.)

High School Location	Male	Female
RURAL	868.2*	-401.4*
SUBURB	1476.5*	463.0*
NE	-1650.2*	1237.4*
SA	-1169.9*	522.7*
ESC	-126.3	373.2
WSC	678.4	1112.9*
ENC	-1020.0*	4.0
WNC	-1011.2	910.4*
MOUNT	-703.5	277.6
PAC	-1349.6*	579.9*
CONSTANT	-3388.5	7392.4*
Sample Size	943	1236
R^2	.171	.202

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 10

PERCENT OF TIME WORKING POST HIGH SCHOOL WAGES - NLSHS DATA
Dependent Variable = EMP

Personal Characteristics	Male	Female
SELF	-.020	.002
LOCUS	-.005	.011
WORK	.072*	.009
COMM	-.020	-.071*
FAM	.032	-.002
HCAP	.089	-.036
SIB	-.009*	.009*
HISP	.081	-.133*
BLACK	-.063*	-.033
STU	-.022	-.012
RESRV	-.045	.188
High School Experience		
INT	.004	-.024*
HSGPA	-.000	.004*
HJOB	.003*	.002*
HSTUD	.002	-.001
GRAD	.028	.182*
MATHS	.001	-.002
READS	.000	.002
VOCS	-.001	-.007
LEADER	.009	.017
COVOC	.011	.065*
UPTAL	-.039	.024
ACHR	.002	-.002
VOCHR	-.003	.001
Home Environment		
FED	.000	-.011*
MED	-.001	-.006
PINC	.000	.001
INCNA	-.021	.013
MS	.043	-.003
KIDS	.022	-.144*

TABLE 10 (Cont.)

High School Location	Male	Female
RURAL	-.013	-.011*
SUBURB	.003	-.006
NE	-.009	.001
NC	.057*	.013
S	.036	-.003
CONSTANT	.638*	-.144*
Sample Size	412	478
R^2	.105	.160

*Denotes significance at a 10% level or better; one-tail t-test.

TABLE 11

PERCENT OF TIME WORKING POST HIGH SCHOOL - HSB DATA
Dependent Variable = EMP

Personal Characteristics	Male	Female
SELF	-.018	-.032*
LOCUS	.056*	.081*
WORK	.006	-.004
COMM	-.000	.005
FAM	.031	.013
HCAP	.039	.003
SIB	-.004	-.005
HISP	.018	.084*
BLACK	-.050*	-.110*
AGE	.003	-.037*
STU	.001	.063*
RESRV	.096	-.281*
High School Experience		
INT	.002	.009
HSGPA	-.001	.003*
HJOB	.005*	.007*
HSTUD	-.010*	-.002
GRAD	.061	-.037
MATHS	.001	.004*
READS	.002	.003*
VOCS	.007*	.002
LEADER	-.041*	.002
COVOC	-.011	.012
UPTAL	.042	-.010
CETA	.046	-.046
ACHR	-.001	-.018*
VOCHR	.013*	.016*
Home Environment		
FED	-.012*	.011*
MED	.003	-.013*
PINC	.004*	-.000
INCNA	-.031	.035
MS	.058	-.060*
KIDS	-.032	-.255*

TABLE 11 (Cont.)

High School Location	Male	Female
RURAL	.036	-.047*
SUBURB	.050	.026
NE	-.081	.223*
SA	.082*	.025
ESC	.085	-.003
WSC	.091*	.078*
ENC	.054	.030
WNC	.019	.111*
MOUNT	.006	.100*
PAC	.060	.031
CONSTANT	.232	.884*
Sample Size	943	1235
R^2	.130	.235

*Denotes significance at a 10% level or better; one-tail t-test.